

## CONTROLLED PRESSURE FUEL NOZZLE SYSTEM

## ABSTRACT

5 A multi-staged gas turbine engine fuel supply  
system includes a plurality of fuel injectors and at  
least first and second staged fuel injection circuits  
in each of the fuel injectors. Each of the first and  
second staged fuel injection circuits includes first  
and second fuel injection points and at least first  
and second fuel nozzle valves operable to open at  
10 different first and second crack open pressures and  
controllably connected to the first and second staged  
fuel injection circuits, respectively. A single fuel  
supply manifold is connected to all of the fuel  
nozzle valves. A single fuel signal manifold is  
15 controllably connected to all of the first and second  
fuel nozzle valves. The fuel injector may have a  
valve housing with one of the first fuel nozzle  
valves and one of the second fuel nozzle valves  
contained therein.